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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,860	11/26/2002	Louis Andrew Schick	RD27507-1	3383

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EXAMINER	
RODRIGUEZ, PAUL L	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,860	SCHICK ET AL.	
	Examiner	Art Unit	
	Paul L Rodriguez	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 November 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 11/22/04 has been received and considered. Claims 1-20 are presented for examination.

Drawings

2. The drawings were received on 11/22/04. These drawings are acceptable.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nichols et al (U.S. Pat 5,347,466). The claimed invention reads on Nichols et al as follows:

Nichols et al discloses a method for analyzing operational performance of industrial power plant machinery (col. 1 lines 6-24, col. 2 line 19 – col. 3 line 2) and a simulation tool (figure 2) the method and simulation tool comprising a user interface (figure 2) receiving an input configuration for a power plant to be analyzed (col. 5 lines 36-38, col. 6 lines 31-61, col. 8 lines 17-22), receiving inputted power plant operational information (col. 5 lines 39-41, col. 6 lines 62-64, col. 7 lines 60-68, col. 10 lines 8-14), a simulation engine (reference number 100) running a simulated power plant operation for a specified period of time based upon said power plant input configuration and said inputted power plant operational information (col. 1 lines 6-43, col. 2 line 64 – col. 3 line 2, col. 5 line 55 – col. 6 line 30, col. 10 lines 63-65, col. 16 line 66 – col. 17 line 4, col. 17 lines 16-24, col. 19 line 29), and outputting simulated results of said simulated power plant operation in accordance with selected economic parameters of said power plant (col. 5 lines 44-49,

col. 10 lines 66-68). Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-6, 8-10, 12-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols et al (U.S. Pat 5,347,466) in view of Hayashi et al (U.S. Pub 2002/0120412).

Nichols et al teaches most all of the instant invention as applied to claims 1 and 11 above and also teaches (claim 3, 13) wherein said inputted power plant operational information includes dynamic inputs, fixed inputs and contract constraints (col. 6 lines 18-30), (claim 5, 15) wherein

said input configuration for a power plant to be analyzed is based upon a selected power plant configuration from a menu (col. 11 lines 1-16), (claim 6, 16) further comprising determining an operational profile of said power plant, said operational profile being determined in accordance with user inputted operational rules (col. 6 lines 65 – col. 7 line 3), (claim 8, 18) further comprising using said simulated results of said simulated power plant operation to evaluate the value of new product introduction with respect to additional performance thereof versus the cost thereof (col. 2 line 53 – col. 3 line 2), (claim 9, 19) further comprising using said simulated results of said simulated power plant operation to evaluate the value of conversion, modification and upgrade of components with respect to additional performance thereof versus the cost thereof (col. 2 line 53 – col. 3 line 2).

Nichols et al fails to teach wherein said input configuration and said inputted power plant operational information is received through a web-based user interface, wherein said selected economic parameters of said power plant include parts cost, parts life and parts performance and using said simulated results of said simulated power plant operation for evaluating a trade-off analysis of component life to performance.

Hayashi et al teaches a system for evaluating power plants for operational and maintenance cost determinations and also teaches wherein the input configuration and power plant operational information is received through a web-based user interface (figure 1, 3, paragraphs 8, 9), wherein said selected economic parameters of said power plant include parts cost, parts life and parts performance (paragraph 11-13) and using said simulated results of said simulated power plant operation for evaluating a trade-off analysis of component life to performance (paragraphs 11-13, 67-74, 82, 83).

Nichols et al and Hayashi et al are analogous art because they are both related to analyzing power plants.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the web-based user interface of Hayashi et al in the system and method for simulating and analyzing of Nichols et al because Hayashi et al teaches calculating a cost of economical loss caused by a power generation efficiency reductions, preparing operational and maintenance plans for the respective power generation units in real time and total cost for the operation and maintenance can be reduced (paragraphs 9-16).

7. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols et al (U.S. Pat 5,347,466) in view of Hayashi et al (U.S. Pub 2002/0120412) as applied to claims 2 and 12 above, and further in view of Eastman et al (U.S. Pat 6,226,597).

Nichols et al as modified by Hayashi et al teaches a system and method for analyzing operational performance of a power plant as recited in claims 2 and 12 for the reasons above, differing from the invention as recited in claims 7 and 17 in that their combined teaching lacks updating an inspection plan, determining from said updated inspection plan, whether an inspection is required, and if an inspection is required, then placing said power plant into an inspection mode in which said power plant is unavailable during said simulated power plant operation for a period of time coinciding with an actual inspection.

Eastman et al teaches updating an inspection plan, determining from said updated inspection plan, whether an inspection is required, and if an inspection is required, then placing said power plant into an inspection mode in which said power plant is unavailable during said

simulated power plant operation for a period of time coinciding with an actual inspection (col. 6 lines 47-61).

Nichols et al as modified by Hayashi et al and Eastman et al are analogous art because they are both related to power plant simulation.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the inspection program of Eastman et al in the system and method for simulating and analyzing of Nichols et al as modified by Hayashi et al because Eastman et al teaches a system that evaluates potential design changes for evaluating the effectiveness of various retrofit scenarios and accurately defines inspection criteria and retirement limits, which maintain the desired failure occurrence rate and maximizing the utilization of hardware (col. 7 lines 26-45).

Response to Arguments

8. Applicant's arguments filed 11/22/04 have been fully considered but they are not persuasive.

Regarding the objections to the drawings, the replacement sheets are acceptable and the objections are withdrawn.

Regarding the objections to the specification, the amendments have corrected the cited deficiencies and the objections are withdrawn.

Regarding the claim objections, the amendments have corrected the cited deficiencies and the objections are withdrawn.

Regarding the arguments relating the rejection under 35 U.S.C. 102. Applicant argues that Nichols et al does not simulate for a specified period of time. The Examiner agrees that there is no explicit language in Nichols et al directed to "running a simulated power plant operation for a specified time period" but it is the Examiners position that Nichols et al does disclose various

aspects in their disclosure that are considered by the Examiner to read on simulating power plant operations for a specified time. Below are specific sections of Nichols et al relied upon by the Examiner to support the rejection.

- Col. 1 lines 6-43 refer to various operating conditions that are simulated by the system, specifically optimizing the system during instances when additional electric power may be required to satisfy demand. The simulating performed when the demand exceeds the output power can be considered a specified period of time.
- Col. 2 line 64 – col. 3 line 2 refers to simulating to determine the effect of removing components for maintenance or replacements. This is considered to be "for a specified period of time" because maintenance and repairs are usually performed in a known period of time and for known durations of time.
- Col. 6 lines 1-8 refers to "the range of random variations is made smaller, following a period". Period is a reference to time, therefore the simulation is based upon a specified period.
- Col. 10 lines 63-65 refers to "Iterate...until calculated pressure converges". The iterations of a simulation step until a convergence can be considered a specified period of time, although not a bound period of time it is still considered a period of time.
- Col. 16 line 66 – col. 17 line 4 states "the operator may specify the number of iterations to be performed". The Examiner considers this to be an operator specified duration of simulation.

- Col. 19 line 29 states "the operator may select the number of restarts to be performed in sequence". Again the operator sets a specified value related to the duration of the simulation.

While the reference does not explicitly use the term "a specified period of time", the reference does disclose various aspects that are considered to be inherent to periods of time such as the time that demand exceeds the output, the time when maintenance and repairs are performed and the number of iterations and restarts that the simulation performs which inherently establishes a period of time. Each of the above citations is considered support "a specified period of time". Also, the specification of the instant invention provided no additional definitions as to what is meant by "a specified period of time" only running the simulation for a specified period of time is set by the user or operator. Which Nichols et al is considered to do by the operator specified number of iterations and restarts.

Examiner would also like to refer to a previously cited reference, Maguire, Jr. et al (U.S. Pat 5,331,579) which states "The next step in the simulation process is to run the modeling system based on initial conditions and expected operating conditions for a period of time designated by the user" found on col. 7 lines 12-42. Teaching that it is well known to simulate for a specified period of time.

Applicant argues that the resulting simulation cannot provide a reliable indication of degradation or improvement in performance over time as can the method recited in claim 1. The Examiner found no language in claim 1 relating to degradation or improvement in performance over time. Therefore, this argument, which is not supported by the claim language, is considered more specific then the claim language and is not persuasive. Examiner would like to state that

even if the argued language were present in the claims, Nichols et al acknowledges this concept in the passage found in col. 1 line 67 – col. 2 line 4.

Regarding the rejections under 35 U.S.C. 103. No additional arguments were presented, only that the dependent claims should be allowable based upon their dependency, which is not persuasive. Therefore the rejections are maintained.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patanian et al (U.S. Pat 6,785,633) – teaches a method and apparatus for simulating the performance of a power plant.

Eastman et al (U.S. Pat 6,226,597) – recites "in service usage and inspection of the components over the subsequent time period is re-simulated to determine a revised acceptable operating plan for the components" col. 4 lines 62-67.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

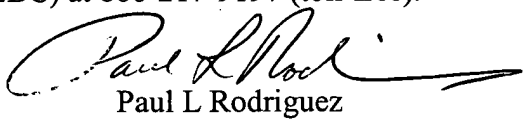
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul L Rodriguez whose telephone number is (571) 272-3753. The examiner can normally be reached on 6:00 - 4:30 T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul L Rodriguez
Primary Examiner
Art Unit 2125

PLR
1/11/05